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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Foung *et al.*
Serial No.:
Filed: December 1, 2000
For: PREVENTION AND TREATMENT OF HCV INFECTION EMPLOYING
ANTIBODIES DIRECTED AGAINST CONFORMATIONAL EPITOPES

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, DC 20231

Sir:

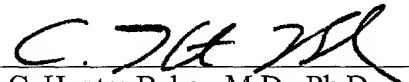
AMENDMENT INTRODUCING SEQUENCE LISTING

In the Specification

Beginning on a new page, immediately before the claims, please insert the attached Sequence Listing; please renumber subsequent pages accordingly.

Please charge any fees that may be associated with this matter, or credit any overpayments, to our Deposit Account No. 03-1721.

Respectfully submitted,


C. Hunter Baker, M.D., Ph.D.
Reg. No.: 46,533

CHOATE, HALL & STEWART
Exchange Place
53 State Street
Boston, Massachusetts 02109
Tel: (617) 248-5000
Fax: (617) 248-4000

Dated: December 1, 2000

2002850-0009

SEQUENCE LISTING

<110> Fount, Steven K.H.
Hadlock, Kenneth G.

<120> Prevention and Treatment of HCV Infection Employing
Antibodies that Inhibit the Interaction of HCV Virions
with Their Receptor.

<130> 2002850-0009

<140> 09/000/00

<141> 2000-12-01

<160> 35

<170> PatentIn Ver. 2.1

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<213> Hepatitis C Virus

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<213> Bovine Pancreatic Ribonuclease A

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<213> T7 Bacteriophage

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<213> Artificial Sequence

<220>

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<213> Artificial Sequence

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<210> 14
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<213> T7 Bacteriophage

<400> 14
Met Ala Ser Met Thr Gly Gly Gln Met Gly
1 5 10

<210> 15
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<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:S-Tag Sequence

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<212> DNA

<213> Hepatitis C Virus

<400> 16

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<210> 17

<211> 21

<212> DNA

<213> Hepatitis C Virus

<400> 17

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21

<210> 18

<211> 32

<212> DNA

<213> Hepatitis C Virus

<400> 18

cgaagcttca tatgatcgct ggtgctcact gg

32

<210> 19

<211> 38

<212> DNA

<213> Hepatitis C Virus

<400> 19

gcggatccct gcagctacaa actggcttga agaatcca

38

<210> 20

<211> 34

<212> DNA

<213> Hepatitis C Virus

<400> 20

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34

<210> 21
<211> 38
<212> DNA
<213> Hepatitis C Virus

<400> 21
gctctagact gcagctatat gccagcctgg agcaccat

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<210> 22
<211> 34
<212> DNA
<213> Hepatitis C Virus

<400> 22
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<210> 23
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<210> 24
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<212> DNA
<213> Hepatitis C Virus

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<210> 26
<211> 23
<212> DNA

<213> Hepatitis C Virus

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<210> 27

<211> 26

<212> DNA

<213> Hepatitis C Virus

<400> 27

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<210> 28

<211> 379

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pdisplay Vector
Sequence with E2 insert of Sflb-E2

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20 25 30

Gln Pro Ala Arg Ser Thr Thr Tyr Thr Thr Gly Gly Ala Ala Ser Arg
35 40 45

Thr Thr Gly Thr Phe Thr Ser Leu Phe Asn Ala Gly Ser Ser Gln Lys
50 55 60

Ile Gln Leu Ile Asn Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala
65 70 75 80

Leu Asn Cys Asn Asp Ser Leu Asn Thr Gly Phe Leu Ala Ala Leu Phe
85 90 95

Tyr Val His Arg Phe Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser
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Cys Arg Ser Ile Asp Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr
115 120 125

<210> 29
 <211> 278
 <212> PRT
 <213> Hepatitis C Virus

<400> 29

Thr Thr Tyr Thr Thr Gly Gly Ala Ala Ser Arg Thr Thr Gly Thr Phe
 1 5 10 15

Thr Ser Leu Phe Asn Ala Gly Ser Ser Gln Lys Ile Gln Leu Ile Asn
 20 25 30

Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala Leu Asn Cys Asn Asp
 35 40 45

Ser Leu Asn Thr Gly Phe Leu Ala Ala Leu Phe Tyr Val His Arg Phe
 50 55 60

Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser Cys Arg Ser Ile Asp
 65 70 75 80

Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr Ala Glu Ser His Ser
 85 90 95

Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala Pro Lys Pro Cys Gly
 100 105 110

Ile Val Pro Ala Ser Gln Val Cys Gly Pro Val Tyr Cys Phe Thr Pro
 115 120 125

Ser Pro Val Val Val Gly Thr Thr Asp His His Gly Val Pro Thr Tyr
 130 135 140

Ser Trp Gly Glu Asn Glu Thr Asp Val Leu Leu Leu Asn Asn Thr Arg
 145 150 155 160

Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp Met Asn Gly Thr Gly
 165 170 175

Phe Thr Lys Thr Cys Gly Gly Pro Pro Cys Asn Ile Gly Gly Val Gly
 180 185 190

Asn Asn Thr Leu Thr Cys Pro Thr Asp Cys Phe Arg Lys His Pro Glu
 195 200 205

Ala Thr Tyr Thr Lys Cys Gly Ser Gly Pro Trp Leu Thr Pro Arg Cys

210 215 220
 Ile Val Asp Tyr Pro Tyr Arg Leu Trp His Tyr Pro Cys Thr Val Asn
 225 230 235 240
 Phe Thr Ile Phe Lys Val Arg Met Tyr Val Gly Gly Met Glu His Arg
 245 250 255
 Leu Asn Ala Ala Cys Asn Trp Thr Arg Gly Glu Arg Cys Asp Leu Glu
 260 265 270
 Asp Arg Asp Arg Ser Glu
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<210> 30
 <211> 251
 <212> PRT
 <213> Hepatitis C Virus

<400> 30
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 20 25 30
 Tyr Val His Arg Phe Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser
 35 40 45
 Cys Arg Ser Ile Asp Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr
 50 55 60
 Ala Glu Ser His Ser Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala
 65 70 75 80
 Pro Lys Pro Cys Gly Ile Val Pro Ala Ser Gln Val Cys Gly Pro Val
 85 90 95
 Tyr Cys Phe Thr Pro Ser Pro Val Val Val Gly Thr Thr Asp His His
 100 105 110
 Gly Val Pro Thr Tyr Ser Trp Gly Glu Asn Glu Thr Asp Val Leu Leu
 115 120 125
 Leu Asn Asn Thr Arg Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp
 130 135 140

Met Asn Gly Thr Gly Phe Thr Lys Thr Cys Gly Gly Pro Pro Cys Asn
 145 150 155 160

Ile Gly Gly Val Gly Asn Asn Thr Leu Thr Cys Pro Thr Asp Cys Phe
 165 170 175

Arg Lys His Pro Glu Ala Thr Tyr Thr Lys Cys Gly Ser Gly Pro Trp
 180 185 190

Leu Thr Pro Arg Cys Ile Val Asp Tyr Pro Tyr Arg Leu Trp His Tyr
 195 200 205

Pro Cys Thr Val Asn Phe Thr Ile Phe Lys Val Arg Met Tyr Val Gly
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Gly Met Glu His Arg Leu Asn Ala Ala Cys Asn Trp Thr Arg Gly Glu
 225 230 235 240

Arg Cys Asp Leu Glu Asp Arg Asp Arg Ser Glu
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<210> 31

<211> 215

<212> PRT

<213> Hepatitis C Virus

<400> 31

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 20 25 30

Ser Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala Pro Lys Pro Cys
 35 40 45

Gly Ile Val Pro Ala Ser Gln Val Cys Gly Pro Val Tyr Cys Phe Thr
 50 55 60

Pro Ser Pro Val Val Val Gly Thr Thr Asp His His Gly Val Pro Thr
 65 70 75 80

Tyr Ser Trp Gly Glu Asn Glu Thr Asp Val Leu Leu Leu Asn Asn Thr
 85 90 95

Arg Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp Met Asn Gly Thr
 100 105 110

Gly Phe Thr Lys Thr Cys Gly Gly Pro Pro Cys Asn Ile Gly Gly Val
 115 120 125

Gly Asn Asn Thr Leu Thr Cys Pro Thr Asp Cys Phe Arg Lys His Pro
 130 135 140

Glu Ala Thr Tyr Thr Lys Cys Gly Ser Gly Pro Trp Leu Thr Pro Arg
 145 150 155 160

Cys Ile Val Asp Tyr Pro Tyr Arg Leu Trp His Tyr Pro Cys Thr Val
 165 170 175

Asn Phe Thr Ile Phe Lys Val Arg Met Tyr Val Gly Gly Met Glu His
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Arg Leu Asn Ala Ala Cys Asn Trp Thr Arg Gly Glu Arg Cys Asp Leu
 195 200 205

Glu Asp Arg Asp Arg Ser Glu
 210 215

<210> 32

<211> 192

<212> PRT

<213> Hepatitis C Virus

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 1 5 10 15

Cys Trp His Tyr Ala Pro Lys Pro Cys Gly Ile Val Pro Ala Ser Gln
 20 25 30

Val Cys Gly Pro Val Tyr Cys Phe Thr Pro Ser Pro Val Val Val Gly
 35 40 45

Thr Thr Asp His His Gly Val Pro Thr Tyr Ser Trp Gly Glu Asn Glu
 50 55 60

Thr Asp Val Leu Leu Leu Asn Asn Thr Arg Pro Pro Gln Gly Asn Trp
 65 70 75 80

Phe Gly Cys Thr Trp Met Asn Gly Thr Gly Phe Thr Lys Thr Cys Gly
 85 90 95

Gly Pro Pro Cys Asn Ile Gly Gly Val Gly Asn Asn Thr Leu Thr Cys

100	105	110
Pro Thr Asp Cys Phe Arg Lys His Pro Glu Ala Thr Tyr Thr Lys Cys		
115	120	125
Gly Ser Gly Pro Trp Leu Thr Pro Arg Cys Ile Val Asp Tyr Pro Tyr		
130	135	140
Arg Leu Trp His Tyr Pro Cys Thr Val Asn Phe Thr Ile Phe Lys Val		
145	150	155
Arg Met Tyr Val Gly Gly Met Glu His Arg Leu Asn Ala Ala Cys Asn		
165	170	175
Trp Thr Arg Gly Glu Arg Cys Asp Leu Glu Asp Arg Asp Arg Ser Glu		
180	185	190

<210> 33
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 <212> PRT
 <213> Hepatitis C Virus

<400> 33
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 20 25 30
 Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala Leu Asn Cys Asn Asp
 35 40 45
 Ser Leu Asn Thr Gly Phe Leu Ala Ala Leu Phe Tyr Val His Arg Phe
 50 55 60
 Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser Cys Arg Ser Ile Asp
 65 70 75 80
 Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr Ala Glu Ser His Ser
 85 90 95
 Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala Pro Lys Pro Cys Gly
 100 105 110

Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser Cys Arg Ser Ile Asp
65 70 75 80

Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr Ala Glu Ser His Ser
85 90 95

Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala Pro Lys Pro Cys Gly
100 105 110

Ile Val Pro Ala Ser Gln Val Cys Gly Pro Val Tyr Cys Phe Thr Pro
115 120 125

Ser Pro Val Val Val Gly Thr Thr Asp His His Gly Val Pro Thr Tyr
130 135 140

Ser Trp Gly Glu Asn Glu Thr Asp Val Leu Leu Leu Asn Asn Thr Arg
145 150 155 160

Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp Met Asn Gly Thr Gly
165 170 175

Phe Thr Lys Thr Cys Gly Gly Pro Pro Cys Asn Ile Gly Gly Val Gly
180 185 190

Asn Asn Thr Leu
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<210> 35

<211> 192

<212> PRT

<213> Hepatitis C Virus

<400> 35

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Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Thr Ser Arg Cys Trp
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr
50 55 60

Ala Ala Ile Arg Arg His Ile Asp Leu Leu Val Gly Thr Ala Thr Phe

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	100		105		110	
Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala						
	115		120		125	
Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser						
	130		135		140	
Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Ala Gly Ala						
	145		150		155	160
His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Ala Gly Asn						
	165		170		175	
Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly						
	180		185		190	

United States Patent & Trademark Office

Office of Initial Patent Examination

Application papers not suitable for publication

SN 09128720

Mail Date 12-01-00

- ☐ Non-English Specification
- ☒ Specification contains drawing(s) on page(s) _____ or table(s) p29, 54, 63, 70, 74,
81, 85, 91, 92.
- ☐ Landscape orientation of text ☐ Specification ☐ Claims ☐ Abstract
- ☐ Handwritten ☐ Specification ☐ Claims ☐ Abstract
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